Exhibit 4

Accessing Unbundled Loops

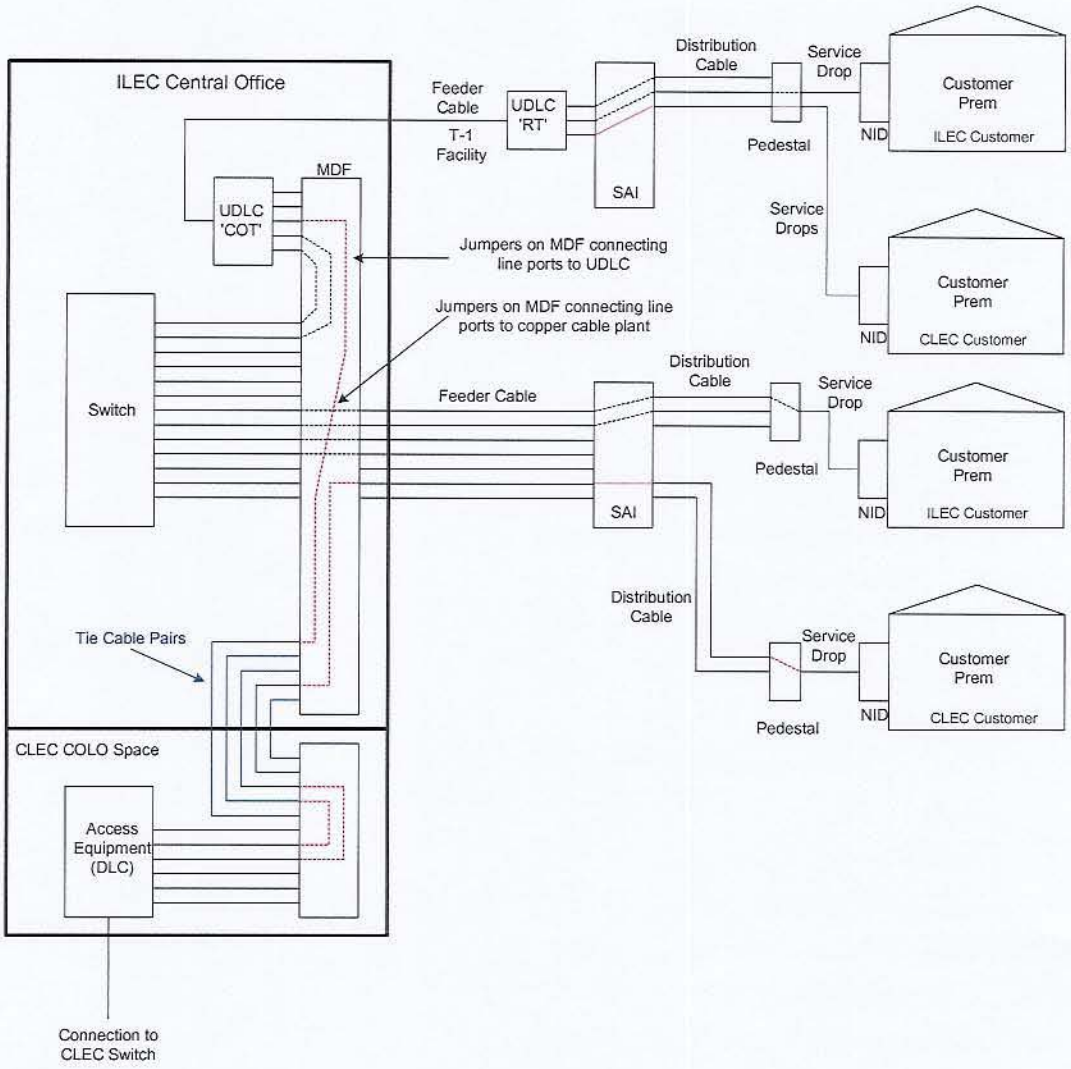
Description of the ILEC Network

The configuration of the original telephone network, repeated throughout the system, typically consisted of a central office and the outside cable plant. In this standard configuration, the central office houses the switching system and the main distribution frame (MDF), and from the central office, the outside cable plant consists of large copper feeder cables that extend from the central office to a serving area interface (SAI). At the SAI, feeder pairs cross-connect to distribution pairs. The distribution pairs extend the cable plant to pedestals located near the customer premises. In the pedestals, the distribution pairs cross-connect to service drops. The service drops extend the cable plant to the network interface device (NID), which is mounted on the side of the house in the case of residential applications, and is a screw down terminal, punch down block, or some other form of interface in the case of business applications.

Technological developments over the years have allowed telephone companies to derive greater line capacity from the existing feeder plant and to shorten the copper portion of the loop by replacing copper feeder with a Digital Loop Carrier system. In some cases, the copper feeder is augmented or replaced with fiber feeder. Through the installation of Universal Digital Loop Carrier (UDLC) systems, Integrated DLC (IDLC) systems, and/or Remote Line or Remote Switching modules, a carrier can run fiber from the central office host switch to the intervening device, and then complete the loop to the customer premises via existing copper distribution plant. The copper feeder that as been "replaced" by fiber feeder can now be used to serve customers directly or to serve additional UDLC, IDLC, or remote devices. Depending on the configuration, however, the installation of such a device may block CLEC access to analog loops at the central office.

Accessing Unbundled Loops

To gain access to unbundled loops, a CLEC must collocate equipment in the ILEC's central office. The type of collocation (physical, adjacent, or virtual) depends on the availability of space and power. Generally, a CLEC can access all copper loops that terminate in the central office where the CLEC has collocated equipment. As illustrated in **Figure 1**, a competitive local exchange carrier (CLEC) can gain access to the local loop configured in this manner by collocating equipment in the ILEC central office and running tie cables (shown in blue) from the ILEC MDF to the CLEC collocation. Under this network configuration, a collocating CLEC should be able to access every loop that is served by the host switch in the central office.

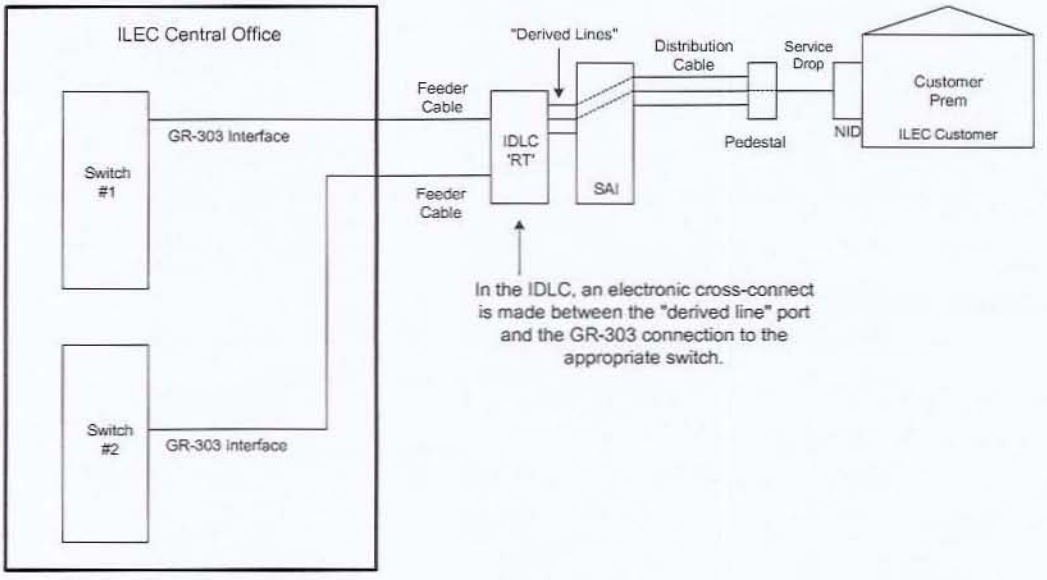


Collocation at an ILEC Central Office with copper loops and a Universal DLC system. The CLEC has access to copper loops and DLC loops.

Figure 1

The CLEC also generally can access all loops provisioned via a UDLC system, provided the COT is located in the central office where the CLEC has collocated equipment. UDLC loop configurations include analog line ports at the UDLC central office terminal, connecting individual loops to the switch. **Figure 1** also illustrates how a CLEC can access UDLC-served loops via its central office collocation. A jumper wire (shown in red) connects the CLEC's line to a tie cable pair to the ILEC MDF. The ILEC installs a second jumper wire (also shown in red) between the tie cable pair and a port on the UDLC equipment. This configuration permits a collocating CLEC to gain access to a loop served at the central office (and through the UDLC) in the same manner as the typical network configuration described above.

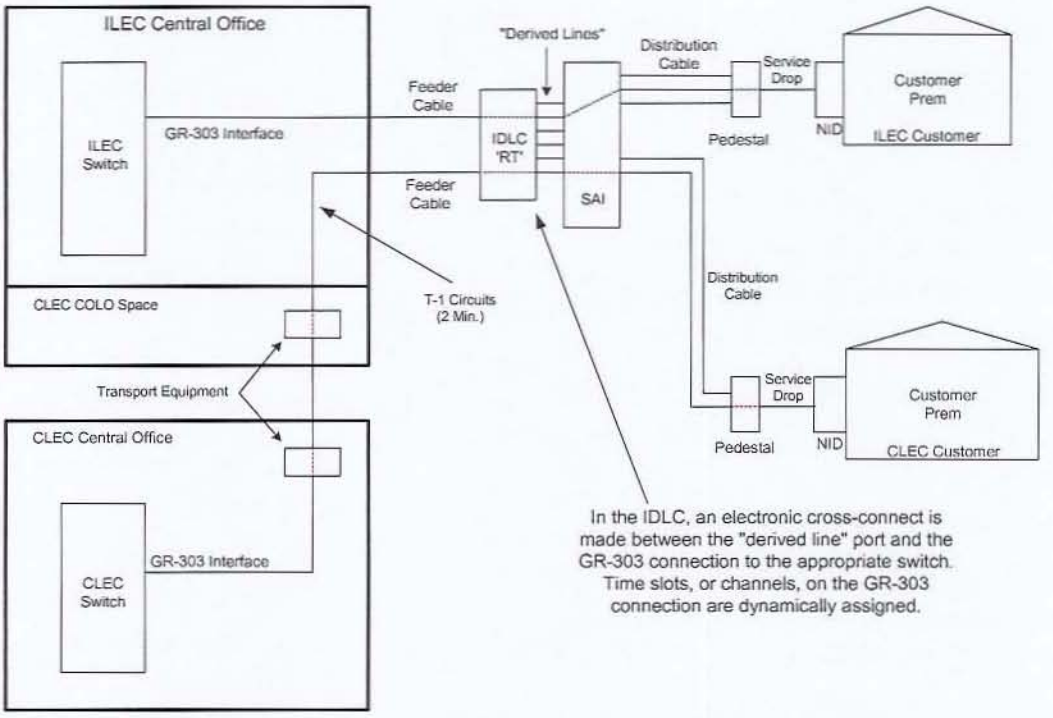
Likewise, newer IDLC systems can interface with two or more switches due to the presence of two or more GR-303 switch interfaces on the IDLC remote terminal, and thus, systems configured in this manner have the capability to assign a customer loop to a specific switch interface "derived line", effectively setting up an electronic cross-connect between distribution cable with a 1:1 ratio with customer loops and feeder cable with a higher per loop concentration ratio. IDLCs configured this way are "multi-hostable." The IDLC system depicted in **Figure 2** is configured to multi-host with two ILEC switches, which might be called for in the event the switches were equipped with different features. Customer loops could be "assigned" to the feeder cable connected to the switch equipped with the features desired by the customer.



This is an example of how an IDLC can be connected to two switches ('multi-hosted').

Figure 2

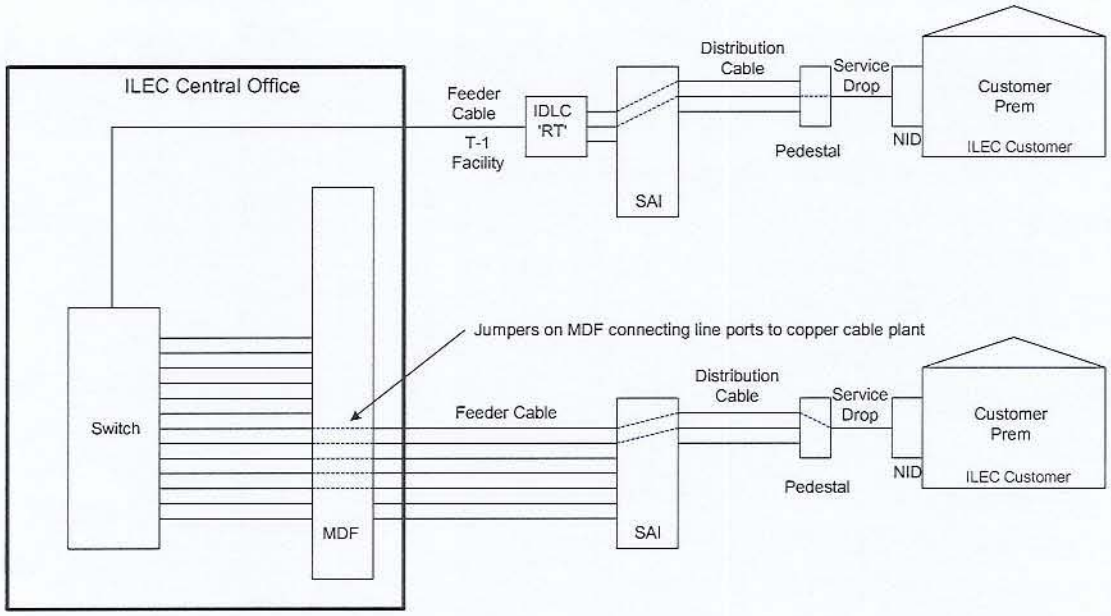
This same multi-hostable arrangement permits CLECs to access loops served via the DLC, as illustrated by **Figure 3** which shows the field installation of an IDLC with multi-hosting capability. The IDLC is configured with two GR-303 interfaces. One interface is connected to the ILEC's switch, and the other is connected to the CLEC's switch. When the CLEC receives a service request from a customer served by the IDLC, the CLEC provides the ILEC with the customer's address and the CLEC's feeder cable facility assignment for that customer. To provision the loop, the ILEC makes the necessary electronic cross-connect in the IDLC equipment to connect the distribution cable serving the customer to the CLEC's switch via the CLEC-specific T-1 feeder cable. The CLEC programs its own switch with the features ordered by the customer.



This is an example of how an IDLC installed in the field can be connected to two switches ('multi-hosted'). The connection between the central office and the IDLC may be metallic or fiber facilities. The ILEC would provide the T-1 connections for the GR-303 connection between the IDLC RT and the CLEC COLO space.

Figure 3

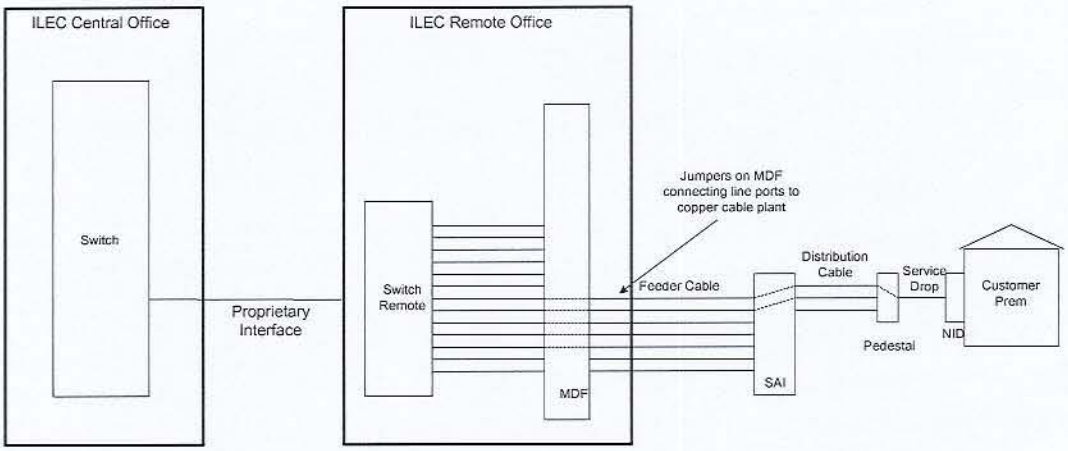
In contrast, a CLEC cannot access loops to customers that are served by a non-multihostable IDLC system or switch remote. As illustrated in **Figure 4**, standard IDLC systems interface directly with the switch, with the traffic commingled on T-1 channels, rather than delivered on a line-by-line basis. This makes it impossible for the CLEC to access the loop at the ILEC central office, because an individual loop serving the customer premises can no longer be identified for cross-connection to the collocated CLEC facilities. In this network configuration, the CLEC can only gain access to the unbundled loop if the ILEC also provides the requisite unbundled switching and transport.



Traditional Copper Distribution Shown in Lower Half
Utilization of Integrated DLC shown in Upper Half

Figure 4

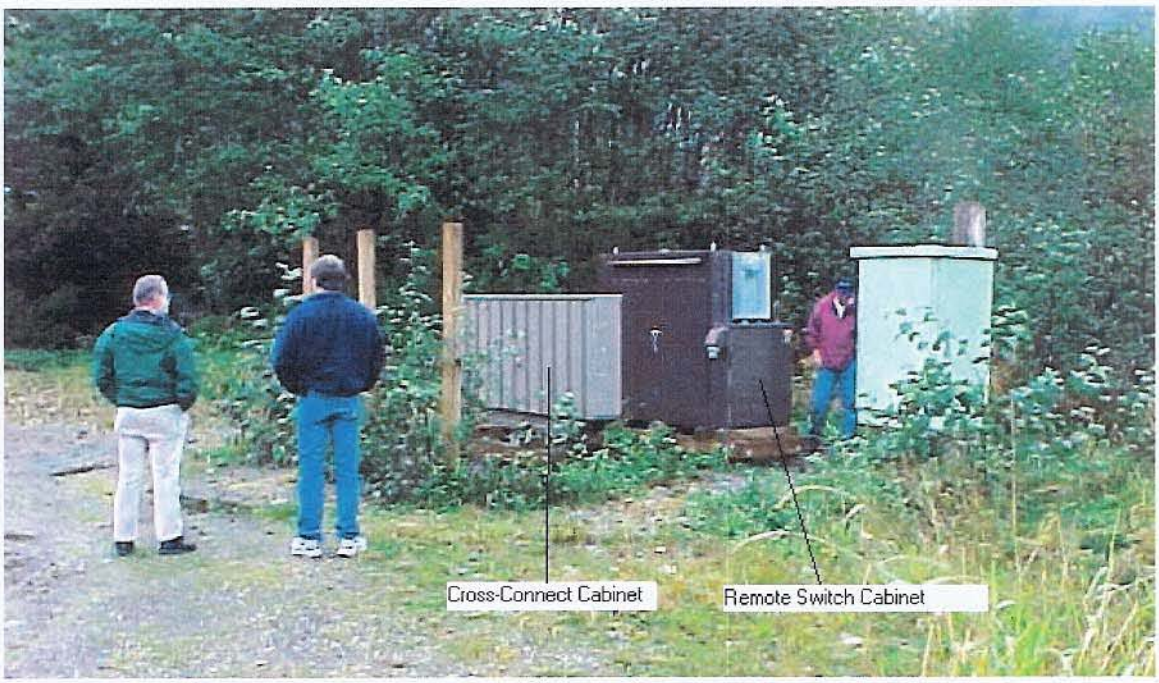
The same is true for the installation of remote switching devices, which employ a proprietary interface between the switching remote and the host switch (**Figure 5**). As is the case for non-multi-hostable IDLC systems, it is not possible to route an individual customer loop from the proprietary interface to the CLEC at the central office.



Example of ILEC Central Office with Host Switch and a Remote Office with a Switch Remote and Traditional Copper Distribution Shown. In this scenario, a CLEC would not gain access to any loops that terminated in the Remote Office if it collocated at the ILEC Central Office.

Figure 5

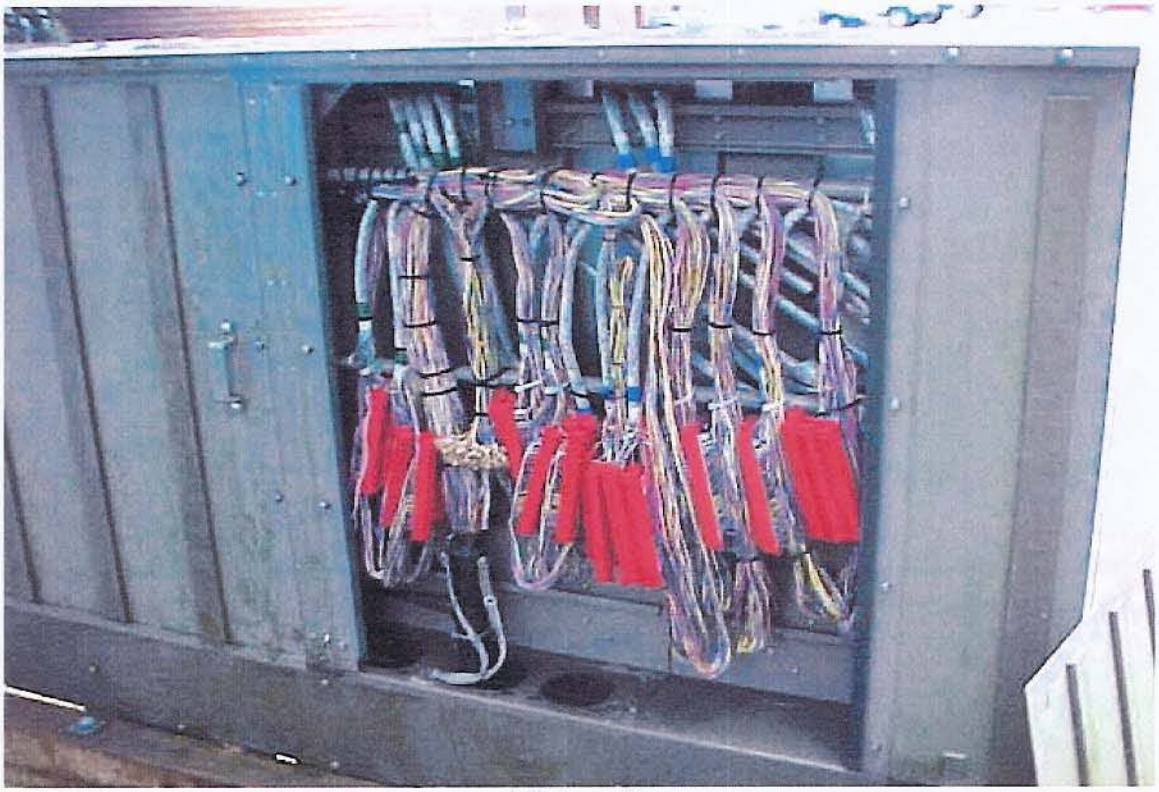
While the CLEC may opt to gain access at the sub-loop level in the situation of a non-multihostable IDLC or remote, it remains the ILEC's obligation to unbundled loops at the central office. Moreover, access via collocation at the sub-loop is often not even possible, as illustrated by the following three pictures. **Picture 1** shows a field installation of switch remote in an environmentally controlled cabinet, next to the associated cross-connect cabinet. This is where a CLEC would have to install its own cabinet and run tie cables to the sub-loop at the ILEC cross-connect cabinet.



Picture 1
Remote Switch Cabinet and External Cross-Connect Cabinet

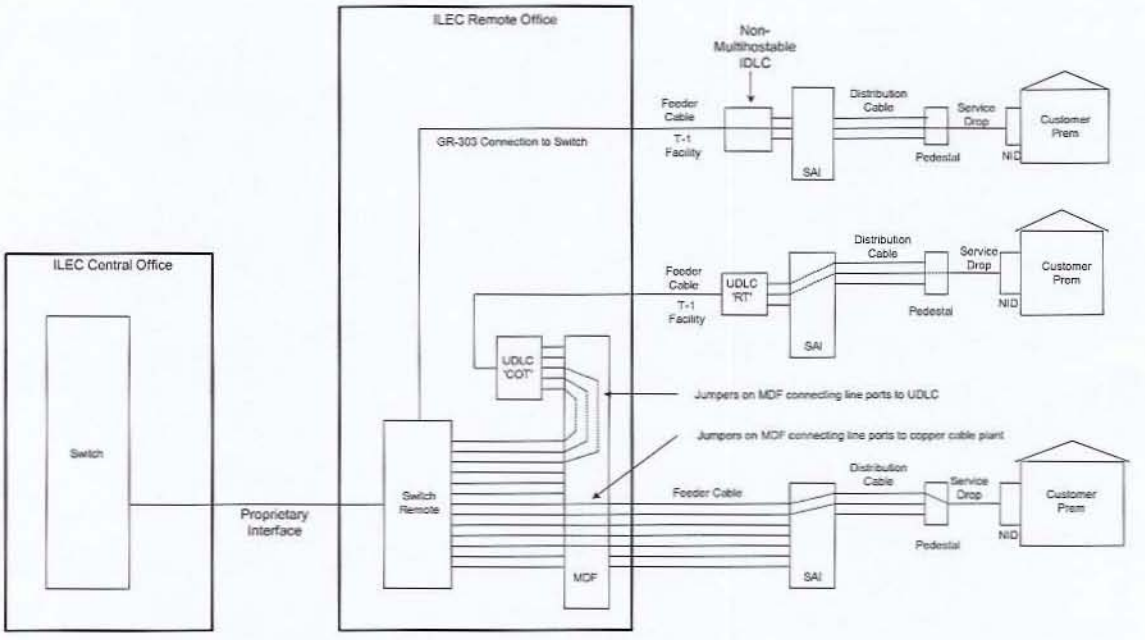
However, as illustrated in **Pictures 2 and 3**, the ILEC cross-connect cabinet is often very full and will not accommodate the termination of tie cables without a complete replacement of the cross-connect cabinet. In some cases, the environmental cabinet includes a small cross-connect panel on the end of the cabinet and an external cross-connect cabinet is not used. In these cases the termination of tie cables cannot be accomplished without installing an external cross-connect and re-cabling the ILEC's equipment. **Picture 2** shows the front view of a typical cross-connect cabinet, and **Picture 3** shows the rear view of the same cabinet. Both pictures depict a cabinet that would not support the termination of tie cable pairs from the CLEC equipment. The only technical solution is replacing the cabinet with a larger one, which is quite costly, and still only provides access to the sub-loop.

Picture 2
Cross-Connect Cabinet Front View



Picture 3
Cross-Connect Cabinet Rear View

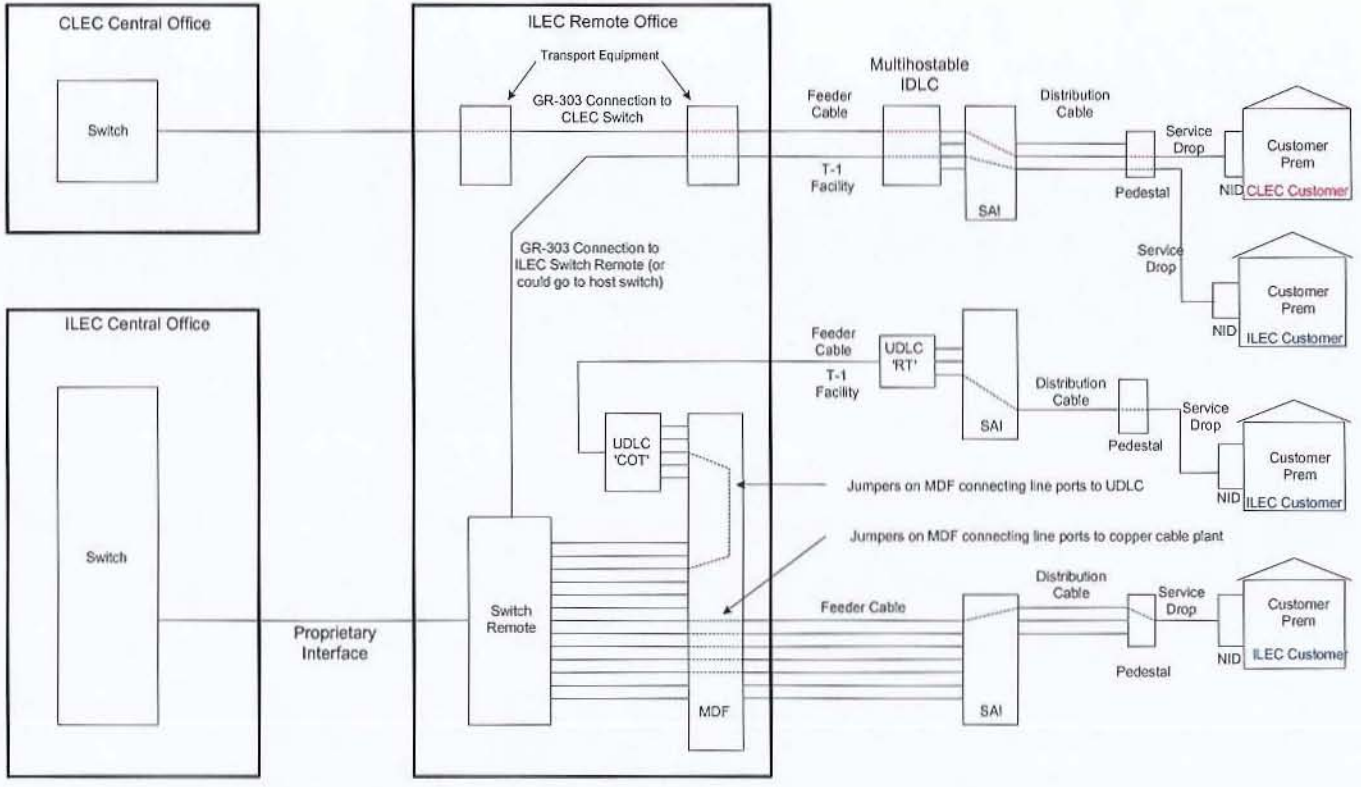
The installation of a remote between a central office host switch and a UDLC can also render the loops served by each of the devices inaccessible. **Figure 6** shows an ILEC central office subtended by a switch remote, in turn subtended by a UDLC system and field installation of a non-multihostable IDLC. In this situation, collocation at the ILEC Central Office would not allow access to any loops terminating to the remote switch.



Example of ILEC Central Office with Host Switch and a Remote Office with a Switch Remote.
Traditional Copper Distribution Shown in Lower Half. Utilization of Universal DLC shown in Upper Half
In this scenario, a CLEC would not gain access to any loops that terminated in the Remote Office if it collocated at the ILEC Central Office.

Figure 6

Changing the non-multihostable IDLC in Figure 6 to a multihostable IDLC, however, at least preserves CLEC access to the IDLC served loops, as demonstrated in **Figure 7**. In this scenario, a CLEC could lease a feeder T-1 between the IDLC and its nearest point of presence and establish a second GR-303 connection to the IDLC equipment. The CLEC would not have access to all customers served by the remote, but it would have access to any customers served by the IDLC. In this scenario, the ILEC would only be able to provide unbundled access to loops served via the remote (including the UDLC-served lines) by also providing the requisite unbundled switching and transport.



Example of ILEC Central Office with Host Switch and a Remote Office with a Switch Remote, UDLC System, and a Multi-Hostable IDLC System.
Traditional Copper Distribution Shown in lower portion. Utilization of Universal DLC shown in the middle. Utilization of IDLC shown in upper portion.
In this scenario, a CLEC would have access only to customers served by the IDLC system. Customers served directly with copper or by the UDLC system would be inaccessible.
The ILEC would transport the T-1s for the GR-303 connections between the IDLC RT and ILEC Central Office. The CLEC T-1s would be connected to a second transport system.

Figure 7

List of Acronyms

CLEC	Competitive Local Exchange Carrier
COT	Central Office Terminal
IDLC	Integrated Digital Loop Carrier
ILEC	Incumbent Local Exchange Carrier
MDF	Main Distribution Frame
NID	Network Interface Device
RT	Remote Terminal
SAI	Serving Area Interface
UDLC	Universal Digital Loop Carrier